IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	)	
	)	Examiner: Janice A. Mooneyham
Miller, et al.	)	
	)	Group Art Unit: 3629
Serial No.: 09/687,303	)	
	)	
Filed: 10/12/2000	)	
	)	
For: Method, Computer Program, and System	)	
For Pushing Flight Information to Passengers	)	

APPEAL BRIEF

Assistant Commissioner for Patents
Mail Stop Appeal Brief
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This brief is submitted pursuant to 37 CFR § 41.37 in support of the Appeal in the above-identified application.

REAL PARTY IN INTEREST

The real party in interest in the present application is Worldspan, L.P., the assignee in the present application as evidenced by the Assignment recorded at Reel 011424, Frame 0238.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Applicants, Applicants' legal representative, or assignee that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1 – 27 are pending in the application and stand finally rejected by the Examiner as noted in the Office Action mailed December 27, 2006. All rejected claims have been appealed.

STATUS OF AMENDMENTS

No amendments to the claims have been submitted subsequent to the final rejection.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention is directed to a method and computer program for pushing flight status information to passengers and/or their agents whenever an airline flight is delayed, canceled, or otherwise subject to a status change so that the passengers can plan accordingly without having to seek out such information (page 1, ll. 29 – 32).

In one aspect of the invention, as defined in Claim 1, a computer program stored on a computer readable medium is provided for operating a host computer (Fig. 1, ref. 12) to automatically notify passengers (Fig. 1, ref. 26) or agents (Fig. 1, ref. 24) of changes in status for airline flights (Fig. 1, ref. 22). The computer program comprises a code segment for receiving passenger reservation information from an airline passenger or an agent of the passenger (p. 6, ll. 2 – 7), the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving (p. 1, l. 35 – p. 2, l. 2; p. 6, ll. 8 – 10); a code segment executed by the host computer for receiving a scheduled time of departure or arrival for the airline flight (p. 2, ll. 17 – 19); a code segment executed by the host computer for receiving an updated time of departure or arrival for the airline flight (p. 2, ll. 20 – 21; p. 6, ll. 18 - 21); a code segment executed by the host computer for comparing the updated time of departure or arrival to the scheduled time of departure or arrival for the flight (p. 2, ll. 21

– 22; p. 6, ll. 24 – 26); and a code segment executed by the host computer for automatically pushing flight status change notification information to the passenger on the airline flight or to the agent of the passenger if the updated time of departure or arrival varies from the scheduled time of departure or arrival by a predetermined amount of time (p. 2, ll. 6 – 10; p. 6, ll. 26 - 30).

In one aspect of the invention, as defined in Claim 6, a computer program stored on a computer readable medium is provided for operating a host computer (Fig. 1, ref. 12) to automatically notify passengers (Fig. 1, ref. 26) or agents (Fig. 1, ref. 24) of changes in status for airline flights (Fig. 1, ref. 22). The computer program comprises a code segment for receiving passenger reservation information from airline passengers or agents of the passengers (p. 6, ll. 2 – 7), the passenger reservation information including a request for automatic flight status change notification information for an airline flight a passenger is reserving (p. 1, l. 35 – p. 2, l. 2; p. 6, ll. 8 – 10); a code segment executed by the host computer for receiving and storing in a database scheduled times of departure or arrival for substantially all U.S. airline flights departing or arriving within a certain time (p. 2, ll. 17 – 19; Fig. 1, ref. 22; Fig. 3, refs. 30, 32, 34, 36); a code segment executed by the host computer for receiving and storing in the database any updated times of departure or arrival for the flights (p. 2, ll. 20 – 21; p. 6, ll. 18 - 21; Fig. 1, ref. 22; Fig. 3, refs. 38, 40); a code segment executed by the host computer for comparing, for each of the flights, the scheduled time of departure or arrival to the updated time of departure or arrival (p. 2, ll. 21 – 22; p. 6, ll. 24 – 26; p. 8, ll. 7 – 9; Fig. 3, refs. 36, 38, 40); a code segment executed by the host computer for flagging records in the database corresponding only to flights in which the updated times of departure or arrival vary from the scheduled times of departure or arrival by a predetermined amount of time (p. 8, ll. 8 – 9); and a code segment executed by the host computer

for periodically querying the database to locate all flagged records (p.8, ll. 15 – 16) and pushing flight status change notification information to each passenger or agent who has requested notification information on each flight corresponding to a record that has been flagged (p. 8, ll. 16 – 18).

In another aspect of the invention as defined in Claim 10, a computer program stored on a computer readable medium is provided for operating a host computer (Fig. 1, ref. 12) to automatically notify passengers (Fig. 1, ref. 26) or agents (Fig. 1, ref. 24) of changes in status for airline flights (Fig. 1, ref. 22). The computer program comprises a code segment executed by the host computer for receiving passenger reservation information from an airline passenger or an agent of the passenger (p. 6, ll. 2 – 7), the passenger reservation information including request for automatic flight status change notification information for an airline flight the passenger is reserving (p. 1, l. 35 – p. 2, l. 2; p. 6, ll. 8 – 10); a code segment executed by the host computer for receiving contact information from the passenger at the time of making a flight reservation (p. 6, ll. 12 – 15); a code segment executed by the host computer for queuing the passenger reservation information to a date-ranged queue using the scheduled time of departure or arrival of the flight (p. 6, ll. 15 – 17); a code segment executed by the host computer for receiving an updated time of departure or arrival for the flight (p. 6, ll. 18 -22); a code segment for accessing the date ranged queue and comparing the scheduled time of departure or arrival to the updated time of departure or arrival (p. 6, ll. 24 – 26); and a code segment executed by the host computer for automatically pushing flight status change notification information to the passenger or to the agent of the passenger via the contact information if the updated time of departure or arrival

varies from the scheduled time of departure or arrival by a predetermined amount of time (p. 6, ll. 26 – 33).

In another aspect of the invention as defined in Claim 14, a method is provided for automatically notifying airline passengers of airline flight status changes. The method comprises the steps of receiving passenger reservation information from the airline passengers (p. 6, ll. 2 – 7), the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving (p.1, l. 35 – p. 2, l. 2; p. 6, ll. 8 – 10); receiving scheduled departure or arrival times of a plurality of airline flights and storing the scheduled departure or arrival times in a computer-readable memory (p. 2, ll. 17 – 19; Fig. 1, ref. 22; Fig. 3, refs. 30, 32, 34, 36); receiving updated departure or arrival times for the airline flights and storing the updated departure or arrival times in a computer-readable memory (p. 2, ll. 20 – 21; p. 6, ll. 18 - 21; Fig. 1, ref. 22; Fig. 3, refs. 38, 40); comparing the scheduled departure or arrival times to the updated departure or arrival times (p. 2, ll. 21 – 22; p. 6, ll. 24 – 26; p. 8, ll. 7 – 9; Fig. 3, refs. 36, 38, 40); and automatically pushing flight status change notification information to each passenger on an airline flight who has requested notification information if the updated departure or arrival time for the airline flight varies from the scheduled departure or arrival time for the airline flight by a predetermined amount of time (p. 2, ll. 6 – 10; p. 6, ll. 26 - 30).

GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

1. Are Claims 1 – 9, 14 – 21, 24 – 25, and 27 properly rejected under 35 USC § 103(a) as being unpatentable over *Nelson* (U.S. Pat. No. 6,496,568) in view of *Becker, et al.* (U.S.

Pat. No. 6,591,263), and further in view of "Schumberger Demonstrates Unique Value-Added Loyalty Application at CTIA Wireless '99"?

2. Are Claims 10 – 13, 22 – 23, and 26 properly rejected under 35 USC § 103(a) as being unpatentable over *Becker, et al.* (U.S. Pat. No. 6,591,263) in view of *Nelson* (U.S. Pat. No. 6,496,568), and further in view of "Schumberger Demonstrates Unique Value-Added Loyalty Application at CTIA Wireless '99"?

ARGUMENT

A. The rejections of Claims 1 – 9, 14 – 21, 24 – 25, and 27 under 35 USC § 103(a) are improper and should be reversed.

The basic test for non-obvious subject matter is whether the differences between the subject matter and the prior art are such that the claimed subject matter as a whole would not have been obvious to a person having ordinary skill in the art to which the subject matter pertains. The U.S. Supreme Court in Graham v. John Deere & Co., 383 U.S. 1 (1966), set forth the factual inquiries which must be considered in applying the statutory test: (1) determination of the scope and contents of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the pertinent art; and (4) evaluating evidence of secondary consideration. Id. at 17 – 18.

In KSR Int'l Co. v. Teleflex, Inc., No. 4-1350 (U.S., Apr. 30, 2007), the Supreme Court reaffirmed the Graham factors and rejected a rigid application of the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. However, the Supreme Court noted that the analysis supporting a rejection under 35 USC § 103(a) should be made explicit, and that it was

"important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. KSR , slip op. at 14.

In determining the scope and content of the prior art, the Examiner must first consider the nature of the problem on which the inventor was working. Once this has been established, the Examiner must select, for purposes of comparing and contrasting with the claims at issue, prior art references that are reasonably pertinent to that problem, i.e., the inventors' field of endeavor. Heidelberger Druckmaschinen AG v. Hantscho Commercial Products, Inc., 30 USPQ 2d 1377, 1379 (Fed. Cir. 1994). In selecting references, hindsight must be avoided at all costs.

The second step within the test described in Graham is to ascertain the differences between the cited prior art and the claims at issue. These differences will subsequently be discussed in greater detail.

In resolving the level of ordinary skill in the pertinent art as required by the third step in Graham, the Examiner must step backward in time and into the shoes worn by a person of ordinary skill when the invention was unknown and just before it was made. The hypothetical person skilled in the art can summarily be described as one who thinks along lines of conventional wisdom in the art and neither one who undertakes to innovate nor one who has the benefit of hindsight. Thus, neither an Examiner, nor a judge, nor a genius in the art at hand, nor even the inventor is such a person skilled in the art. For purposes of the present appeal, one of ordinary skill in the art is considered to be a computer programmer having a bachelor's degree in computer science, and one to two years of experience in design and/or development of application software for the global distribution industry.

In order to establish a prima facie case of obviousness, it is necessary for the Examiner to present evidence, preferably in the form of some teaching, suggestion, incentive, or inference in the applied prior art, or in the form of generally available knowledge that one having ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention. Ex parte Levingood, 28 USPQ 2d 1300, 1301 (Bd. Pat. App. & Int. 1993); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F2d 281, 227 USPQ 657 (Fed. Cir. 1985). The legal conclusion of obviousness must be supported by facts. See Graham. Where the legal conclusion is not supported by facts, it cannot stand. Id.

A rejection based on 35 USC § 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. The patentability of an invention is not to be viewed with hindsight or "viewed after the event." Goodyear Co. v. Ray-O-Vac, 321 US 275 (1944). The proper inquiry is whether bringing them together was obvious, and not whether one of ordinary skill having the invention before him, would find it obvious through hindsight to construct the invention. Accordingly, an Examiner cannot determine obviousness by locating references that describe various aspects of the patent applicant's invention without also providing a reason why a person having ordinary skill in the art would combine the known elements in the manner claimed.

Claims 1 and 14:

In the Office Action mailed December 27, 2006, the Examiner stated that *Nelson* teaches code segments executed by the host computer for: receiving a scheduled time of departure or arrival for the airline flight; receiving an updated time of departure or arrival for the airline flight; comparing the updated time of departure or arrival to the scheduled time of departure or arrival

for the flight; and automatically pushing flight status change notification information to the passenger on the airline flight or to the agent of the passenger. The Examiner acknowledged that *Nelson* does not disclose that notification is pushed to the passenger if the updated time of departure or arrival varies from the scheduled time of departure or arrival by a predetermined amount of time, or that the request for notification is made at the time of making a reservation, or a code segment for receiving passenger reservation information from an airline passenger or an agent, the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving.

The Examiner relied upon *Becker* for the teaching of notification if the updated time of departure or arrival varies from the scheduled time of departure or arrival by a predetermined amount of time. The Examiner relied upon *Schlumberger* for teaching of a code segment for receiving passenger reservation information from an airline passenger or an agent of the passenger, the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving.

The Examiner stated that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the notification criteria of *Becker* with the disclosure of *Nelson* since the Multi-Modal Traveler Information System "significantly reduces the traveler's burden and frustration with the additional and often irrelevant information reported by known systems through dissemination of portions of the generalized travel conditional information and provides for personalized information for personalized travel conditions." Further, the Examiner stated that it would have been obvious to incorporate into the notification system disclosed in *Nelson*, the option at the time of booking to receive the alert information taught in *Schlumberger*

"to provide personalized and on-demand flight information as a complementary service for the most important common customers thereby creating a value added service with special appeal to business travelers and allow the airline companies to retain customers and grow their subscriber base."

Applying the first step of the Graham test, *Nelson* teaches a customer message manager (CMM) that interfaces with airline databases through periodic polling. When new events are identified that require customer (subscriber) notification, the set of customer devices requiring notification is determined. As long as there are customer devices remaining to be notified, the customer devices with the highest customer grouping criteria (frequent flyers, highest ticket prices) are notified first. Then, a predetermined amount of time is allowed to elapse that allows a customer in the highest customer grouping to receive a notification and take any desired action. The remaining customer devices are then notified. When all customer devices have been notified as determined, there is another delay of a predetermined amount of time before processing returns to poll airline databases (col. 5, l. 63 – col. 6, l. 9). Thus, *Nelson* teaches a notification system in which notification is based on a subscriber level of priority that is established by the CMM.

Applying the second step of the Graham test, *Nelson* differs from the present invention in that the customer message manager periodically polls the airline database and then decides if and when to notify the subscriber. This is a teaching of periodic polling of flight status information, followed by pushing notification information to a requested subscriber on a customer priority or value basis, e.g., notify first class passengers, then frequent business travelers, and finally the rest of the passengers, providing sufficient time between notification of passengers in each group to

make itinerary change before a lower priority group is notified. There is no guarantee that each passenger requesting automatic notification will receive an alert when flight status has changed. The present invention continuously updates flight status and then automatically delivers notifications to each passenger requesting such notification. *Nelson* fails to teach or fairly suggest receiving passenger reservation information from an airline passenger or an agent of the passenger, when the passenger information includes a request for automatic flight status change notification information for an airline flight the passenger is reserving, and then automatically pushing flight status change notification to the passenger or an agent if the updated time of departure or arrival varies from the scheduled time of arrival or departure by a predetermined amount.

Applying the first step of the Graham test, *Becker, et al.* teaches a multi-modal traveler information system that attempts to combine a plurality of different travel modes and personalized travel conditions into a single system for dissemination of information to registered customers. *Becker, et al.* teaches that data elements are collected/captured for a customer's personal profile for uniquely identifying the traveler, his personal travel routes, and preferred notification criteria and communication devices for information delivery. Each route defined within a profile contains a description, origin, multi-modal path, and destination. Customers may register particular routes for automatic notification of events such as weather or traffic conditions along a route. The notification criteria includes the preferred delivery device and the date, week, and time that travel on the route is anticipated (col. 5, ll. 45 – 55). *Becker, et al.* further teaches that generalized travel condition information is filtered by the system 100 according to the information provided in the pre-stored customer profiles. In the first stage of the filtering

process, the location of the travel condition is compared with the routes of the customer profiles to determine which customers may be affected. For affected customers that register for automatic notification, the filtration process compares the customer's notification time window and the expected duration of the travel condition. If the customer's notification time window falls sometime during the expected duration of the event, a determination is then made as to when to notify the customer about the travel condition (col. 5, l. 56 – col. 6, l. 4).

Applying the second step of the Graham test, *Becker, et al.* differs in one aspect from the claimed invention in that a passenger would have to make flight reservations through a flight reservation system and separately register his personal profile information along with particular routes for his travel itinerary in order to be notified automatically. Even if a traveler has signed up for automatic notification, it is still up to the traveler information system to decide if and when to notify the traveler (col. 5, l. 63 – col. 6, l. 4). More specifically, *Becker, et al.* teaches that it is preferred to avoid automatic notification of planned events (col. 13, ll. 7 – 15). Thus the system taught by *Becker, et al.* would only provide automatic notification to travelers for unplanned events that would seem to be only those events that the traveler could not become aware of through other means (col. 13, ll. 7 – 15). For example, an airline passenger or interested party could always call the airline for updated status information on departure or arrival times for a specific flight. Therefore, *Becker, et al.* fails to teach or fairly suggest receiving passenger reservation information from an airline passenger or an agent of the passenger, wherein the passenger reservation information includes a request for automatic flight status change notification information for an airline flight the passenger is reserving, and then automatically pushing flight status change notification information to the passenger or agent if the updated time

of departure or arrival varies from the scheduled time of arrival or departure by a predetermined amount.

Applying the first step of the Graham test, *Schlumberger* discloses a smart card-based loyalty application targeting frequent travelers to provide a competitive advantage to GSM wireless operators in North America. The smart card application presumably is installed on a wireless GSM handset. *Schlumberger* identifies potential alerts that could be received automatically via the handset, but provides no details on how the smart card application would work. Furthermore, references to this smart-card application, if it exists, could not be found in a search on the Schlumberger website. Presumably, a frequent traveler, having the smart card application installed on his handset, would call an airline or travel agent to make a flight reservation (usage-motivating reward of air miles for increased air time usage), and request optional alerts when booking the flight.

Applying the second step of the Graham test, there is no disclosure in *Schlumberger* of how an airline flight is booked (presumably by calling an airline or travel agent) or how alerts are generated and delivered to the GSM handset via a smart card application. In fact, there is no disclosure of what functions the smart card application performs, or how the application would interface with a computerized flight reservation system operating on a host computer. Therefore, *Schlumberger* fails to teach or suggest receiving passenger reservation information from an airline passenger or an agent of the passenger, wherein the passenger reservation information includes a request for automatic flight status change notification information for an airline flight the passenger is reserving, and then automatically pushing flight status change notification

information to the passenger or agent if the updated time of departure or arrival varies from the scheduled time of arrival or departure by a predetermined amount.

With regard to the reasons for combining the prior art references stated by the Examiner, the reason stated for combining *Nelson* with *Becker, et al.* (reduce traveler's frustration by providing personalized travel conditions) would not lead one of ordinary skill in the art to combine the teachings of the two references. *Nelson* is concerned with providing notification services on a preferential basis. *Becker, et al.* is concerned with providing travel conditions (e.g., weather, snow, road construction) to a traveler on a particular route so that the traveler can react to the conditions in an appropriate manner. As noted above, there is no teaching in either Nelson or Becker, et al. of pushing flight status notification information to passengers if the updated time or departure or arrival varies from the corresponding scheduled time by more than a predetermined amount.

With regard to the reason for combining *Nelson* with *Schlumberger* (provide complementary personalized on-demand flight information), the problems with *Schlumberger* have been discussed above. Specifically, there is no disclosure on how an airline flight is booked or how alerts are generated and delivered to the GSM handset using the smart card application. In fact, there is no disclosure of what functions the smart card application performs, or how the application would interface with a computerized flight reservation system operating on a host computer. Furthermore, the Examiner appears to have engaged in impermissible hindsight reconstruction of Applicants' invention in order to find and apply the *Schlumberger* reference.

As a result of the foregoing, one skilled in the art at the time the invention was made would not have been able to produce the invention of Claim 1 using the prior art of record.

Accordingly, the rejection of Claim 1 is not well-founded and should be reversed. Claims 2 – 5, 18 – 19, and 24 depend from Claim 1 and the rejection of these claims is not well-founded and should be reversed for at least the same reasons as for Claim 1.

Independent Claim 14 is a method claim having steps that directly parallel the computer program code segments recited in Claim 1. The same arguments and analysis provided for Claim1 are equally applicable to Claim 14. Therefore, for the same reasons as for Claim 1, the rejection of Claim 14 is not well-founded and should be reversed. Claims 15 – 17 and 27 depend from Claim 14; thus the rejection of these claims are not well-founded and should be reversed.

Claim 6:

In the Office Action mailed December 27, 2006, the Examiner stated that *Nelson* discloses code segments executed by the host computer for: receiving and storing in a database scheduled times of departure or arrival for airline flights; receiving and storing in the database any updated times of departure or arrival for the flights; comparing, for each of the flights, the scheduled time of departure or arrival to the updated time of departure or arrival; flagging records in the database corresponding only to flights in which the updated times of departure or arrival vary from the scheduled times of departure or arrival; and periodically querying the database to locate all flagged records and pushing flight status change notification information to each passenger or agent of the passenger on each flight corresponding to a record that has been flagged.

The Examiner acknowledged that *Nelson* does not explicitly disclose that the notification is pushed to the passenger if the updated time of departure or arrival varies from a scheduled time of departure or arrival by a predetermined amount of time; that the request is at the time of

making the reservation; or a code segment for receiving passenger reservation information from the airline passengers or agents, the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving.

The Examiner relied upon *Becker, et al.* for teaching of notification if the updated time of departure or arrival varies by a pre-determined amount of time. The Examiner relied upon *Schumberger* for disclosing receiving passenger reservation information from an airline passenger or an agent, the passenger reservation information including a request for automatic flight and status change notification information for an airline flight the passenger is reserving.

Applicants incorporate by reference the arguments presented above concerning the teachings of *Nelson*, *Becker, et al.* and *Schumberger* with regard to applying the first step of the Graham test.

Applying the second step of the Graham test to the three prior art references, each reference fails to teach "receiving and storing in a database scheduled times of departure or arrival for substantially all U.S. airline flights departing or arriving with any certain time. The customer's CMM taught by *Nelson* relies on airline databases to access flight information and does not independently store flight data in a database. *Becker, et al.* relies on public databases to retrieve information and does not independently store flight data. In addition, none of the references teaches "flagging records in the database corresponding to flights in which the updated times of departure or arrival vary from the scheduled times of departure or arrival by a predetermined amount of time," and "periodically querying the database to locate all flagged records" and notifying passengers on the flagged flights. None of the references teaches or fairly

suggests any record flagging, since each reference relies on third party or public databases to determine when notification is required. The polling described by *Nelson* is merely connecting to the airline databases to receive "events" such as delayed flights. *Nelson* does not teach or fairly suggest any means for the airline databases to specifically determine delay or provide events as the airline databases are external to the customer's CMM and not relevant to a specific operation. Furthermore, even if the references did teach all the limitations of Claim 6, there is no reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed. The system disclosed by *Nelson* is a subscriber system that interfaces with airline reservation systems through polling. The system taught by *Becker* is a daily or weekly traveler information system that provides information on weather, traffic, or construction conditions to a registered subscriber along a specified route of travel within a specified time window. In contrast, the invention defined in Claim 6 integrates directly into an airline reservation system and expands the passenger name record, which is common to airline reservation systems to include a capability for automatic notification when the status of a flight reservation changes. There is no subscription or registration with a third party that is required in order to receive automatic notification of flight status changes.

The Examiner's stated reasons for combining *Nelson*, *Becker, et al.*, and *Schumberger* to reject Claim 6 are the same reasons that were stated for the rejection of Claim1. Accordingly, Applicants incorporate by references the arguments presented above for Claim 1 regarding the Examiner's rationale for combining references..

As a result of the foregoing, one skilled in the art at the time the invention was made would not have been able to produce the invention of Claim 6 using the prior art of record.

Accordingly, the rejection of Claim 6 is not well-founded and should be reversed. Claims 7 – 9, 20 – 21, and 25 depend from Claim 6 and the rejection of these claims is not well-founded and should be reversed for at least the same reasons as for Claim 6.

B. The rejection of Claims 10 – 13, 22 – 23, and 26 under 35 USC § 103(a) is improper and should be reversed.

In the Office Action mailed December 27, 2006, the Examiner stated that *Becker, et al.* discloses code segments executed by the host computer for: receiving passenger reservation information from an airline passenger or an agent of the passenger; <u>storing the passenger reservation information including the scheduled time of departure or arrival of the flight;</u> receiving contact information from the passenger; receiving an updated time of departure or arrival for the flight; accessing the date ranged information and comparing the scheduled time of departure or arrival to the updated time of departure or arrival; and automatically pushing the flight status notification information to the passenger or to an agent of the passenger who has requested notification via the contact information if the updated time of departure or arrival varies from the scheduled time of departure or arrival by a predetermined amount of time. The limitation underlined above is not recited in Claim 10.

Although the rejection was stated as being based on a combination of *Nelson*, *Becker, et al.*, and *Schumberger*, the Examiner did not rely on *Nelson* for the teaching of any limitation in the claim. Therefore, this claim rejection is improper on its face. The Examiner applied *Becker, et al.*, and *Schumberger* to the limitations of Claim10 and took official notice that queuing is well known in the art.

The Examiner acknowledged that *Becker* does not disclose queuing the passenger information at a date-ranged queue using the time of departure or arrival or that the passenger reservation information includes a request for automatic flight status change notification information for an airline flight the passenger is reserving or that the request is at the time of making the reservation. The Examiner took official notice "that putting information in a queue is well-known in the art since queuing is simply listing items to be done, for example, a print queue for a printer prints the items in the order that they are requested." The Examiner stated that it would have been obvious to modify *Becker, et al.* to include the step of queuing the information with respect to date in order for ease of processing.

The Examiner relied on *Schumberger* for disclosing a code segment for receiving passenger reservation information from an airline passenger or an agent, the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving. The Examiner stated that it would have been obvious to one of ordinary skill to incorporate into the notification system disclosed in *Nelson,* the option at the time of booking to receive the alert information taught in *Schumberger* so as to provide personalized and on-demand flight information with a complementary service for the most important common customers creating a value added service with special appeal to business travelers, thus allowing the airline companies to retain customers and grow their subscriber base. The reference to *Nelson* was an apparent error; it appears that the Examiner intended to provide a reason for combining *Becker, et al.* with *Schlumberger.*

With regard to the first step of the Graham test, Applicants incorporate by reference their arguments made above concerning the *Nelson*, *Becker, et al.*, and *Schlumberger* references.

Applying the second step of the Graham test, *Becker, et al.,* as acknowledged by the Examiner, does not disclose queuing the passenger information in a date-ranged queue using the time of departure or arrival. Although queuing is old and well-known in the art, date-range queuing is not. In date-range queuing, a host computer queues the passenger name records using the scheduled date and time of departure or arrival of the flight as a queuing mechanism. *Becker, et al.* does not teach or fairly suggest queuing passenger reservation information to a date-range queue. Furthermore, *Becker, et al.* teachings could not be modified readily to add date-range queuing. In Applicants' invention, date range queuing is used to store passenger reservation information including a request for automatic notification based on scheduled time of departure or arrival of the flight. The flight status change notification information is pushed to the passenger if the updated time of departure or arrival varies by more than a predetermined amount of time. This is to be contrasted with the teachings of *Becker, et al.* which predicates automatic customer notification with several processing steps that are triggered by an event as illustrated in Figs. 8, 9A, and 9B.

As shown in Fig. 8, customer user profile data is run to determine which customer routes will be affected by an event. This forms a database of affected customers. For the affected customers who have signed up for automatic notification, the time of the event, and the start time and duration of the affected customer's route are compared to determine if there is a match. Only at this point, is the customer marked for automatic notification. The customers that require automatic notification are noted in the affected customer list which is built and stored as indicated at step 917 in Fig. 9B. These processing steps represent a teaching away from the use of date-ranged queuing. Therefore, the traveler information system of *Becker, et al.* could not easily

be modified to add date-ranged queuing since to do so would drastically alter the processing of event and user profile data as described in Figs. 8, 9A, and 9B. As disclosed by *Becker, et al.* at col. 13, ll. 55 – 58, "It should be appreciated that the testing for active customers and routes minimizes the data that must be processed for each unplanned event, looping through E" (see Figs. 9A – 9B).

Furthermore, in order to make use of the traveler information system taught by *Becker, et al.*, a passenger would have to make flight reservations through an unrelated flight reservation system and separately register his personal profile information with the traveler information system along with particular routes for his travel itinerary in order to be notified automatically. Even if a traveler has signed up for automatic notification, it is still up to the traveler information system to decide if and when to notify the traveler (col. 5, l. 63 – col. 6, l. 4). More specifically, *Becker, et al.* teaches that it is preferred to avoid automatic notification of planned events (col. 13, ll. 7 – 15). Thus, the system taught by *Becker, et al.* would provide automatic notification to travelers only for unplanned events which seem to be only those events that the traveler could not become aware of through other means (col. 13, ll. 7 – 15). Therefore, *Becker, et al.* fails to teach or fairly suggest receiving passenger reservation information from an airline passenger or an agent of the passenger, wherein the passenger reservation information includes a request for automatic flight status change notification information for an airline flight the passenger is reserving, and then automatically pushing flight status change notification information to the passenger or agent if the updated time of departure or arrival varies from the scheduled time of arrival or departure by a predetermined amount of time.

Applying the second step of the Graham test to the *Schlumberger* reference, there is no disclosure in *Schlumberger* of how an airline flight is booked or how alerts are generated and delivered to the GSM handset using the smart card application. In fact, there is no disclosure of what functions the smart card application performs, or how the application would interface with a computerized flight reservation system operating on a host computer. Therefore, *Schlumberger* fails to teach or suggest receiving passenger reservation information from an airline passenger or an agent of the passenger, wherein the passenger reservation information includes a request for automatic flight status change notification information for an airline flight the passenger is reserving, and then automatically pushing flight status change notification information to the passenger or agent if the updated time of departure or arrival varies from the scheduled time of arrival or departure by a predetermined amount.

With regard to the reason for combining B*ecker, et al.* with *Schlumberger* (provide complementary personalized on-demand flight information), there is no disclosure on how an airline flight is booked using the smart card application or how alerts are generated and delivered to the GSM handset. There is no disclosure of what functions the smart card application performs, or how the application would interface with a computerized flight reservation system operating on a host computer. Furthermore, the Examiner appears to have engaged in impermissible hindsight reconstruction of Applicants' invention in order to find and apply the *Schlumberger* reference.

As a result of the foregoing, one skilled in the art at the time the invention was made would not have been able to produce the invention of Claim 10 using the prior art of record. Accordingly, the rejection of Claim 10 is not well-founded and should be reversed. Claims 11 –

13, 22 – 23, and 26 depend from Claim 10 and the rejection of these claims is not well-founded and should be reversed for at least the same reasons as for Claim 10.

CONCLUSION

For the foregoing reasons, the Examiner's rejections of Claims 1 - 27 are not well-founded. Reversal of the rejections and allowance of the claims is respectfully requested.

Respectfully submitted,

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CLAIMS APPENDIX

1. A computer program stored on a computer-readable medium for operating a host computer to automatically notify passengers or agents of changes in status for airline flights, the computer program comprising:

   a code segment for receiving passenger reservation information from an airline passenger or an agent of the passenger, the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving;

   a code segment executed by the host computer for receiving a scheduled time of departure or arrival for the airline flight;

   a code segment executed by the host computer for receiving an updated time of departure or arrival for the airline flight;

   a code segment executed by the host computer for comparing the updated time of departure or arrival to the scheduled time of departure or arrival for the flight; and

   a code segment executed by the host computer for automatically pushing flight status change notification information to the passenger on the airline flight or to the agent of the passenger if the updated time of departure or arrival varies from the scheduled time of departure or arrival by a predetermined amount of time.

2. The computer program as set forth in claim 1, the notification information including information relating to the updated time of departure or arrival for the airline flight.

3. The computer program as set forth in claim 1, the predetermined amount of time being between 10 - 60 minutes.

4. The computer program as set forth in claim 1, the predetermined amount of time being approximately 30 minutes.

5. The computer program as set forth in claim 1, wherein the passenger reservation information includes passenger contact information for receiving automatic flight status change notification information about the airline flight the passenger is reserving.

6. A computer program stored on a computer-readable medium for operating a host computer to automatically notify passengers or agents of changes in status for airline flights, the computer program comprising:

a code segment for receiving passenger reservation information from airline passengers or agents of the passengers, the passenger reservation information including a request for automatic flight status change notification information for an airline flight a passenger is reserving;

a code segment executed by the host computer for receiving and storing in a database scheduled times of departure or arrival for substantially all U.S. airline flights departing or arriving within a certain time;

a code segment executed by the host computer for receiving and storing in the database any updated times of departure or arrival for the flights;

a code segment executed by the host computer for comparing, for each of the flights, the scheduled time of departure or arrival to the updated time of departure or arrival;

a code segment executed by the host computer for flagging records in the database corresponding only to flights in which the updated times of departure or arrival vary from the scheduled times of departure or arrival by a predetermined amount of time; and

a code segment executed by the host computer for periodically querying the database to locate all flagged records and pushing flight status change notification information to each passenger or agent who has requested notification information on each flight corresponding to a record that has been flagged.

7. The computer program as set forth in claim 6, the notification information including information relating to the updated time of departure or arrival for the airline flight.

8. The computer program as set forth in claim 6, the predetermined amount of time being between 10 - 60 minutes.

9. The computer program as set forth in claim 6, the predetermined amount of time being approximately 30 minutes.

10. A computer program stored on a computer-readable medium for operating a host computer to automatically notify passengers or agents of changes in status for airline flights, the computer program comprising:

a code segment executed by the host computer for receiving passenger reservation information from an airline passenger or an agent of the passenger, the passenger reservation information including request for automatic flight status change notification information for an airline flight the passenger is reserving;

a code segment executed by the host computer for receiving contact information from the passenger at the time of making a flight reservation;

a code segment executed by the host computer for queuing the passenger reservation information to a date-ranged queue using the scheduled time of departure or arrival of the flight;

a code segment executed by the host computer for receiving an updated time of departure or arrival for the flight;

a code segment for accessing the date ranged queue and comparing the scheduled time of departure or arrival to the updated time of departure or arrival; and

a code segment executed by the host computer for automatically pushing flight status change notification information to the passenger or to the agent of the passenger via the contact information if the updated time of departure or arrival varies from the scheduled time of departure or arrival by a predetermined amount of time.

11. The computer program as set forth in claim 10, the notification information including information relating to the updated time of departure or arrival for the airline flight.

12. The computer program as set forth in claim 10, the predetermined amount of time being between 10 - 60 minutes.

13. The computer program as set forth in claim 10, the predetermined amount of time being approximately 30 minutes.

14. A method of automatically notifying airline passengers of airline flight status changes, the method comprising the steps of:

receiving passenger reservation information from the airline passengers, the passenger reservation information including a request for automatic flight status change notification information for an airline flight the passenger is reserving;

receiving scheduled departure or arrival times of a plurality of airline flights and storing the scheduled departure or arrival times in a computer-readable memory;

receiving updated departure or arrival times for the airline flights and storing the updated departure or arrival times in a computer-readable memory;

comparing the scheduled departure or arrival times to the updated departure or arrival times; and

automatically pushing flight status change notification information to each passenger on an airline flight who has requested notification information if the updated departure or arrival time for the airline flight varies from the scheduled departure or arrival time for the airline flight by a predetermined amount of time.

15. The method as set forth in claim 14, the notification information including information relating to the updated departure or arrival time for the airline flight.

16. The method as set forth in claim 14, the predetermined amount of time being between 10-60 minutes.

17. The method as set forth in claim 14, the predetermined amount of time being approximately 30 minutes.

18. The computer program as set forth in claim 1, the host computer comprising a plurality of computing devices.

19. The computer program as set forth in claim 1, the host computer comprising a computer network.

20. The computer program as set forth in claim 6, the host computer comprising a plurality of computing devices.

21. The computer program as set forth in claim 6, the host computer comprising a computer network.

22. The computer program as set forth in claim 10, the host computer comprising a plurality of computing devices.

23. The computer program as set forth in claim 10, the host computer comprising a computer network.

24. The computer program as set forth in claim 1, wherein the notification information is pushed through electronic mail.

25. The computer program as set forth in claim 6, wherein the notification information is pushed through electronic mail.

26. The computer program as set forth in claim 10, wherein the notification information is pushed through electronic mail.

27. The computer program as set forth in claim 14, wherein the notification information is pushed through electronic mail.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None